IMAGE PROCESSING DEVICE, ITS CONTROL METHOD AND MEMORY MEDIUM
[画像処理装置及びその制御方法並びにメモリ媒体]

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(54) [Title of the Invention] **IMAGE PROCESSING DEVICE, ITS CONTROL METHOD AND MEMORY MEDIUM**

(57)Abstract:
PROBLEM TO BE SOLVED: To eliminate the difficulty of designating a client computer for a transfer destination of a read original image with respect to a push type network scanner.
SOLUTION: A button 14 to instruct reading of an original image is provided with a fingerprint read section 14a to read a fingerprint pattern of an operator. The fingerprint read section 14a reads a fingerprint pattern of the operator when the button 14 of the scanner 1 is depressed and transfers the fingerprint pattern to a server 3. The server 3 refers to a table 300 to specify an address of a client computer 2 of a user and transfers the address to the scanner 1. The scanner 1 transfers a read original image to the client computer 2 of the user according to the received address.

[Claims]

[Claim 1] An image processing device characterized by having a manuscript reading means as an image processing system, answering actuation of a control unit for an operator to direct reading of a manuscript image and said control unit, and to read a manuscript image, a fingerprint reading means to read the fingerprint pattern of the operator concerning actuation of said control unit, and an acquisition means to acquire operator information about an operator based on a reading fingerprint pattern.

[Claim 2] An image processing device according to Claim 1 characterized by having further an image transfer means to transmit a reading manuscript image through a network to the client computer based on said operator information.

[Claim 3] An image processing device according to Claim 1 characterized by having further an image transfer means to transmit a reading manuscript image to a server through a network as owned by the operator who directed the reading.

[Claim 4] An image processing device according to any one of the Claims 1-3 characterized by acquiring the operator information which transmits a reading fingerprint pattern to a server through a network, answering, and sending through said network from said server.

[Claim 5] An image processing device according to any one of the Claims 1-4 with a fingerprint reading means characterized by being included in said control unit.

[Claim 6] An image processing device according to any one of the Claims 1-4 characterized by reading the operator's fingerprint pattern when said control unit is operated by the operator.

[Claim 7] An image processing device characterized by having a manuscript reading

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means as an image processing system, answering actuation of a control unit for an operator to direct reading of a manuscript image and said control unit, and to read a manuscript image, a fingerprint reading means to read the fingerprint pattern of the operator concerning actuation of said control unit, and a reading manuscript image and a transfer means to transmit a reading fingerprint pattern to an information processor through a network.

[Claim 8] A control method for an image processing device of the image processing system characterized to include a manuscript reading process being the control method of an image processing system having a control unit, a manuscript read station which reads a manuscript image, and a fingerprint read station which reads a fingerprint pattern, answering actuation of said control unit and reading a manuscript image by said manuscript read station, the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit by said fingerprint read station, and the acquisition process that acquire the operator information about an operator based on a reading fingerprint pattern.

[Claim 9] A control method for an image processing device of the image processing system according to Claim 8 characterized by including further the image transfer process of transmitting a reading manuscript image through a network to the client computer specified based on said operator information.

[Claim 10] A control method for an image processing device of the image processing system according to Claim 8 characterized by including further the image transfer process of transmitting a reading manuscript image to a server through a network as owned by the operator who directed the reading.

[Claim 11] A control method for an image processing device of an image processing system given in any 1 term of claim 8 characterized by acquiring the operator information which transmits a reading fingerprint pattern to a server through a network, answers this at said acquisition process, and is sent through said network from said server thru/or claim 10.

[Claim 12] A control method for an image processing device said fingerprint read station is the control method of an image processing system given in any one of the Claims 8-10 characterized by being included in said control unit.

[Claim 13] A control method for an image processing device said fingerprint read station is the control method of an image processing system given in any one of the Claims 8-11 characterized by reading this operator's fingerprint pattern with said fingerprint reading process when said control unit is operated by the operator.

[Claim 14] A control method for an image processing device characterized to include the manuscript reading process being a control method of an image processing system of having a control unit, the manuscript read station which reads a manuscript image, and the fingerprint read station which reads a fingerprint pattern, answering actuation of said control unit and reading a manuscript image, the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit, and a reading manuscript image and the transfer process which transmits a reading fingerprint pattern to an information processor through a network.

[Claim 15] A memory medium which stores the control program of the image processing system which has a control unit, the manuscript read station which reads a manuscript image, and the fingerprint read station which reads a fingerprint pattern, and this control

program, the manuscript reading process of answering actuation of said control unit and reading a manuscript image by said manuscript read station, characterized to include the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit by said fingerprint read station, and the acquisition process which acquires the operator information about an operator based on a reading fingerprint pattern.

[Claim 16] A memory medium which stores the control program of the image processing system which has a control unit, the manuscript read station which reads a manuscript image, and the fingerprint read station which reads a fingerprint pattern, and this control program, the manuscript reading process of answering actuation of said control unit and reading a manuscript image, and the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit, and the memory medium characterized by including a reading manuscript image and the transfer process which transmits a reading fingerprint pattern to an information processor through a network.

[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to a memory medium in an image processing system and its control method list.

[0002]

[Prior Art] With a network scanner of the conventional push type, in order to specify the

address of the client of the destination of a read image, the user needed to choose an

address found in an address book which inputs the address corresponding to a network

scanner, or is registered beforehand.

[0003] Moreover, with the conventional network scanner, in case a reading image is

transmitted to a server, the method of entering a password into a network scanner in

advance of the transfer for security is adopted.

[0004]

[Problems to be Solved by the Invention] However, in the above-mentioned conventional

example, in order to specify the address of the destination or to enter the password for the

security on a server, the user needed to operate the key of the control panel of a scanner

etc. That is, there was the requirement to read an image and to be operated conventionally

other than transfer directions.

[0005] This invention aims at making easy the activity which makes an operator

recognizable to the image processing system which has a function for it to be made in

view of the above-mentioned background, for example, to read a manuscript.

[0006]

[Means for Solving the Problems] The image processing system concerning the 1st aspect

of this invention is characterized by having a control unit for an operator to direct read a

manuscript image, a manuscript reading means to answer actuation of said control unit

and to read a manuscript image, a fingerprint reading means read the fingerprint pattern

of the operator concerning actuation of said control unit, and an acquisition means to

acquire the operator information about an operator based on a reading fingerprint pattern.

[0007] It is in the image processing system concerning the 1st aspect of the above-

mentioned invention that it is desirable to have further an image transfer means to transmit a reading manuscript image through a network to the client computer specified based on said operator information.

[0008] It is in the image processing system concerning the aspect of the above-mentioned invention that it is desirable to have further an image transfer means to transmit a reading manuscript image to a server through a network as owned by the operator who directed the reading.

[0009] As for said acquisition means, it is in the image processing system concerning the 1st aspect of the above-mentioned invention that it is desirable to acquire operator information which transmits a reading fingerprint pattern to a server through a network, answers this pattern, and sends it through said network from said server.

[0010] As for said fingerprint reading means, it is desirable to be included in said control unit is in the image processing system concerning the 1st aspect of above-mentioned invention.

[0011] When said control unit is operated by the operator, as for said fingerprint reading means, it is desirable to have in the image processing system concerning the 1st aspect of the above-mentioned invention the ability to read this operator's fingerprint pattern.

[0012] It is an image processing system concerning the 2nd aspect of this invention, and is characterized by having a control unit for an operator to direct reading of a manuscript image, a manuscript reading means answering actuation of said control unit and reading a manuscript image, a fingerprint reading means read the fingerprint pattern of the operator concerning actuation of said control unit, and a reading manuscript image and a transfer means transmitting a reading fingerprint pattern to an information processor through a

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network.

[0013] The control method of the image processing system concerning the 3rd aspect of this invention has a manuscript reading process as the control method of an image processing system of having a control unit, the manuscript reading station which reads a manuscript image, and the fingerprint reading station which reads a fingerprint pattern, answering actuation of said control unit and reading a manuscript image by said manuscript read station, characterized by including the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit by said fingerprint read station, and the acquisition process which acquires the operator information about an operator based on a reading fingerprint pattern.

[0014] The control method of the image processing system concerning the 4th aspect of this invention the manuscript reading process of having a control method of an image processing system of having a control unit, the manuscript read station which reads a manuscript image, and the fingerprint reading station which reads a fingerprint pattern, answering actuation of said control unit and reading a manuscript image characterized by including the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit, and a reading manuscript image and the transfer process which transmits a reading fingerprint pattern to an information processor through a network.

[0015] The manuscript read station in which the memory medium concerning the 5th aspect of this invention reads a manuscript image, has the memory medium which stores the control program of the image processing system which has the fingerprint read station which reads a fingerprint pattern. This control program is characterized by a manuscript

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reading process for answering actuation of said control unit and reading a manuscript image by said manuscript read station, including the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit by said fingerprint read station, and the acquisition process which acquires the operator information about an operator based on a reading fingerprint pattern.

[0016] The manuscript read station which is a memory medium concerning the 6th aspect of this invention, reading a control unit and a manuscript image, is the memory medium which stores the control program of the image processing system which has the fingerprint read station which reads a fingerprint pattern. This control program is characterized by including the manuscript reading process of answering actuation of said control unit and reading a manuscript image, the fingerprint reading process of reading the fingerprint pattern of the operator concerning actuation of said control unit, and a reading manuscript image and the transfer process which transmits a reading fingerprint pattern to an information processor through a network.

[0017]

[Detailed Description of the Invention] Figure 1 is a drawing showing a rough configuration of the image processing system concerning an embodiment of this invention. This image processing system connects a scanner (image processing system) 1, a client computer (information processor) 2, and a server (information processor) 3 by the network (this example, LAN) 4.

[0018] A scanner 1 is the so-called network of a push type, reads a manuscript image by the manuscript read station 14, and has the function to transmit a reading manuscript image to a client computer 2 or a server 3. CPU11 controls each device in a scanner 1

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according to the software stored in ROM12. Figure 2 is a drawing showing typically the program stored in ROM12. Moreover, Figure 4 is a drawing showing roughly the flow of the program stored in ROM12.

[0019] A carbon button 14 is a carbon button for a user (operator) to direct reading of a manuscript image and the transfer of a reading manuscript image, and is equipped with fingerprint read station 14a for reading a user's fingerprint pattern. RAM13 stores temporarily user information, such as address information sent from a reading manuscript image, a reading fingerprint pattern, and a server 3.

[0020] A scanner 1 can communicate through other equipment and networks 4 by LAN-I/F15.

[0021] A client computer 2 receives and processes the reading manuscript image transmitted from a scanner 1. A client computer 2 is accessed from other equipment according to the predetermined address.

[0022] A server 3 has the table 300 for associating and carrying out user information and a user's fingerprint pattern of the account name of the address of a client computer 2 and other client computers (not illustrated), and the user on this server, a password, etc. While referring to a table 300, a server 3 specifies the address of the client computer of the user concerned based on the fingerprint pattern sent from a scanner 1, and transmits the address to a scanner 1. Figure 3 is a drawing showing an example of a table 300.

[0023Figure 4 is a flow chart which shows the flow of actuation of a scanner 1. In addition, the processing shown in this flow chart is controlled by CPU11 based on the program stored in ROM12.

[0024] Here, in order to simplify explanation, a network 4 shall be LAN, a scanner 1, a

client computer 2, and one server 3 shall be connected to this network 4 at a time, but these can be made into two or more sets in case a system is actually built.

[0025] Moreover, since a known method is employable as data transfer processing between a scanner 1, a server 3, and a client computer 2 for reading processing of the manuscript image in a scanner 1 and reading processing of a fingerprint pattern, an explanation of the processing that specifies the address of a client computer based on a fingerprint pattern in a server 3, and a list is omitted here.

[0026] Moreover, by this system, according to the transfer request of the image from a scanner 1, the application and the driver for receiving an image shall be started automatically, shall receive an image in a band unit from a scanner 1 by the driver, and shall hand over to an application in a client computer 2.

[0027] At step S41, a scanner 1 will progress to step S42, if waiting and a carbon button 15 are pushed, and it is in step S42 that reads a user's fingerprint pattern by fingerprint read station 14a prepared in this carbon button 15, and stores it in RAM13 temporarily.

[0028] At step S43, the fingerprint pattern stored in RAM13 is transmitted to a server 3 through LAN-I/F16. On the other hand, in a server 3, by comparing each fingerprint pattern ("fingerprint A" - "Fingerprint E") registered into the table 3 shown in the fingerprint pattern received from the scanner 1, and Figure 3, the address of the client computer 2 of the user concerning the received fingerprint pattern is specified, and the address is transmitted to a scanner 1. Here, in addition to the address, the corresponding account and a corresponding password may be transmitted to a scanner 1.

[0029] At step S44, a scanner 1 will progress so that the address is transmitted from a server 3 to step S45.

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[0030] At step S45, a scanner 1 reads a part for one band of a manuscript image (for example, 64 rasters) by the image read station 14, and, stores it in RAM13 temporarily. It transmits to the client computer 2 which has the address which received the image for one band stored in RAM13 at step S44 through LAN-I/F16 at step S46. Here, account and a password may be collectively transmitted to a client computer 2.

[0031] At step S47, there is a determination of whether the transfer of all images was completed, and when not ended, return and when transfer is completed, a series of processes about reading and a transfer of a manuscript image are ended at step S45.

[0032] The reading image of a manuscript can be transmitted to a server 3 from a scanner 1, and the image concerned can also be saved at step S46 at a server 3. In this case, as for a server 3, it is desirable to relate with the user name as a user's possessions specified based on the fingerprint pattern received previously from a scanner 1 (i.e., the user concerned), account, and a password, and to save the reading image concerned. Thereby, use of the reading manuscript image concerned by other users is controllable. Moreover, processing of step S44, i.e., the processing which transmits the address to a scanner 1 from a server 3, may be omitted in this case.

[0033] Moreover, in the embodiment, a scanner 1 and a server 3 can also be unified and the function (for example, function to specify a user, the address, account, and a password based on a fingerprint pattern) of a server 3 may be prepared in a scanner 1. In the case of the latter, a user, the address, account, a password, etc. can be specified by scanner 1 independent one, for example, a reading manuscript image and a user, the address, account, a password, etc. can be transmitted to a server 3 or the corresponding client computer 2.

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[0034] As mentioned above, according to the embodiment, only by a user operating the carbon button for directing reading actuation of a manuscript image, can the user concerned be specified and the reading image of the manuscript image concerned can be transmitted to the corresponding client computer. Therefore, a user is released from the troublesome key stroke for inputting or choosing the information on the address etc. It is also possible to arrange in a separate location here, without unifying a carbon button 14 and fingerprint read station 14a. Also in this case, a user can make a scanner 1 recognize itself only by touching fingerprint read station 14a.

[0035] Moreover, according to the embodiment, without carrying out troublesome actuation for entering an account, a password, etc., a user can relate a reading manuscript image with itself, namely, can save itself as owned at a server etc.

[0036] In addition, even if it this invention is applied to a system which consists of two or more devices (for example, a host computer, an interface device, a reader, a printer, etc.), it may be applied to equipment (for example, a copying machine, facsimile apparatus, etc.) which consists of one device.

[0037] Moreover, it cannot be overemphasized by the purpose of this invention supplying the storage (or record medium) which recorded the program code of the software which realizes the function of the embodiment to a system or equipment, and reading and performing the program code with which the computer (or CPU and MPU) of the system or equipment was stored in the storage that it is attained. In this case, the function of the embodiment wherein the program code itself is read from the storage mentioned above will be realized, and the storage which stored that program code will constitute this invention. Moreover, it cannot be overemphasized that it is contained also when the

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function of the embodiment which performed a part or all of the processing that the operating system (OS) which is working on a computer is real, based on directions of the program code, and the function of the embodiment mentioned above by performing the program code which the computer read is not only realized, but mentioned above by the processing is realized.

[0038] Furthermore, after the program code read from a storage is written to the memory with which the functional expansion unit connected to the functional expansion card inserted in the computer or with which a computer is equipped, it cannot be overemphasized that it is contained also when the function of the embodiment which performed a part or all of processing with a CPU with which the functional expansion card and functional expansion unit are equipped based on directions of the program code is actual, and mentioned above by the processing is realized.

[0039]

[Effect of the Invention] This invention, for example, gives an image processing system a function which easily reads a manuscript and recognizes an operator.

[Brief Description of the Drawings]

[Figure 1] It is a drawing showing the rough configuration of the image processing system concerning an embodiment of suitable operation of this invention.

[Figure 2] It is a drawing showing typically the program stored in ROM of a scanner.

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[Figure 3] It is a drawing showing an example of the table stored in the server.

[Figure 4] It is a drawing showing roughly the flow of the program stored in ROM of a scanner.
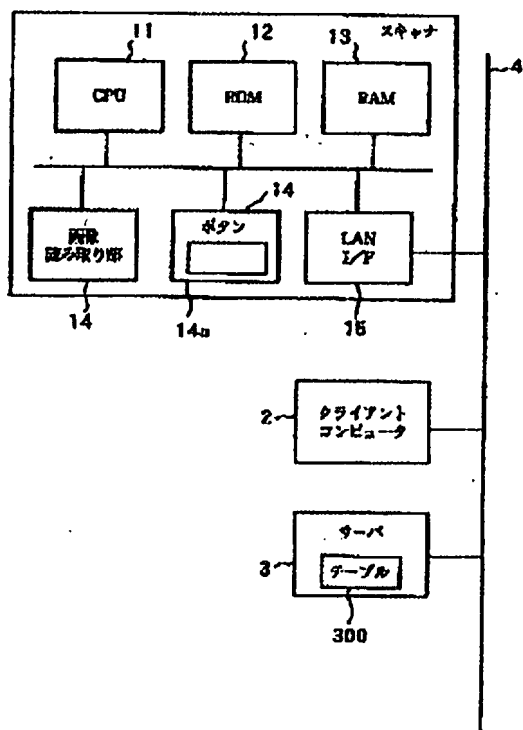
[Figure 2]

	(illegible)
Fundamental operations processing	(illegible)

[Figure 3]

User A	Fingerprint A	Address A	Account A	Password A
User B	Fingerprint B	Address B	Account B	Password B
User C	Fingerprint C	Address C	Account C	Password C
User D	Fingerprint D	Address D	Account D	Password D
User E	Fingerprint E	Address E	Account E	Password E

[Figure 1]

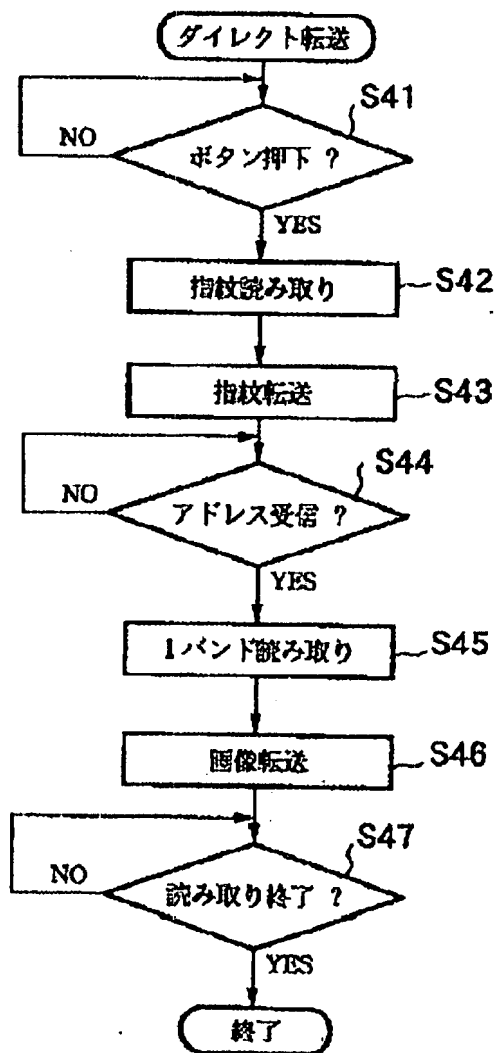14- image reading unit

14a- button

2- client computer

3- server

300-table

[Figure 4]

Direct transfer

S41- button pushed?

S42- fingerprint read

S43- fingerprint transfer

S44- address received?

S45- 1 band read

S46- image transfer

S47- read complete

Complete